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#### Indian Standard

# CODE OF PRACTICE FOR PACKAGING OF MICROSCOPES FOR EXPORT

I. Scope — Prescribes the code of practice for packaging of large, medium and small microscopes for export.

## 2. Method of Packaging

- 2.1 General The microscope shall be separated into the main body (stand), objective lenses, eye pieces and accessories. Each item should be individually wrapped in waterproof paper and placed in its cushioned receptacle provided in the box/case meant for carrying and storing the microscope.
- 2.1.1 Each box/case should then be placed in a corrugated board carton; each carton provided with water vapour-proof wrapping and then one or more of such cartons combined, adequately padded with space filling material and packaged in the outer wooden container.

Note — Corrugated board carton may be omitted in the case of small microscopes and several units together covered with waterproof wrapping.

- 2.2 Complete Package The complete package consists of primary package, the intermediate package and the outer container.
- 2.2.1 The materials suitable for use as primary package together with the mode of use are given in Table 1 for guidance.

#### **TABLE 1 PRIMARY PACKAGE**

#### Material Mode of Use Type Wrapping paper Glazed paper of not less than 43'5 g/m<sup>2</sup> or any other paper equally effective or better Any material may be used for the case Microscope Objectives and eyepieces should be placed case/box and its internal receptacles/partitions cylindrical containers which, in turn, should be held in receptacles provided for the purpose, inside the microscope case. The design and construction of the case should be such as to prevent the movement of pieces and shock and damage due to external forces. Suitable cushionto keep the objective lenses, eyepieces and stand in position as long as it can prevent movement of parts and the shock. ing material, such as expanded polystyrene foam or polyethylene foam should be used for this purpose. A bag of silica gel ( regenerated ) shall be pose. A pag of sinca yet (regenerated) status so suitably placed inside the case. Empty spaces, if any, in the receptacles shall be filled with suitable packing material. When hygroscopic material is used, particular care should be taken for the use of water-vapour barrier To reduce the total dunnage (surface area) and the amount of desiccant within the case, it is desirable to pack the main components individu-Water vapour Materials with a mean water vapour proof packaging permeability of 30 g/m<sup>2</sup>/24 h or less shall be used ally and seal them Adopted 17 June 1988 © March 1989, BIS Gr 1

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2.2.2 The materials recommended for intermediate package are given in Table 2 for guidance.

TABLE 2 INTERMEDIATE PACKAGE				
Туре	Material	Mode of Use		
Inermediate package	Corrugated fibre-board [see IS: 2771 (Part 1)-1977 'Specification for fibre-board boxes: Part 1 Corrugated fibre-board boxes (first revision)']	To pack the microscope case		
Space filler	Air bubble sheet or corrugated fibre- board	To be used by folding and turning or by piling		
	Waterproof bitumen laminated paper conforming to IS: 1398-1982 'Specification for packing paper, waterproof, bitumen laminated ( second revision )' with permeability less than 60 g/m²/24 h	The joints should be sealed		
	Paper shreddings	Should be stuffed around the item at the rate of 70-90 g/1 000 cm <sup>3</sup>		

2.2.3 The outer container shall be a wooden box. The material and design suitable for the box should be selected from IS: 1503 - 1979 'Specification for wooden packing cases ( second revision )'. The size of the box should be such that there is a clearance of 2.5 cm from the contents on all sides for stuffing the cushioning material.

3. Weight and Volume — The weight and volume of the complete package shall be as under:

Weight of the Package
Up to 70 kg

Volume
Up to 0.28 m<sup>3</sup>

- 3.1 For transportation by air, the weight and volume of the complete package may be adjusted to yield economy in air freight, and packaging suitably modified to suit the environmental conditions.
- 4. Test For performance testing of the complete package, it is recommended to take into account, to the extent applicable, the requirements laid down in IS: 5415-1969 'Code of practice for packing and packaging of optical and mathematical instruments and components'.
- 5. Marking The outer container shall be marked with the following information:
  - a) Description and number of microscopes in the package,
  - b) Name of the manufacturer or any symbol, and
  - c) Standard symbol for indicating fragile contents with the legend 'HANDLE WITH CARE' and the symbol for 'THIS WAY UP' [ see IS: 1260 ( Part 2 ) 1979 Pictorial markings for handling and labelling of goods: Part 2 General goods ( second revision ) ].

### EXPLANATORY NOTE

The function of packaging of microscopes is to protect the contents against atmospheric and transportation hazards. This code has been prepared with the intention of providing guidance to those engaged in this trade.

In the preparation of this standard, assistance has been derived from JIS 0703 - 1960 'Packaging and packing of microscopes for export', issued by the Japanese Standards Association (JIS).